



## Dial-Peer Support for Data Calls

The Dial-Peer Support for Data Calls feature enables the configuration of the dial peers as voice or data. The feature provides a unified call processing model that is scalable for voice and data calls through dial-peer provisioning. The feature also enables the capability of assigning separate number ranges for voice or data calls so that the calls will have the same preference level of matching.

### Feature Specifications for Dial-Peer Support for Data Calls

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#### Feature History

Release	Modification
12.2(13)T	This feature was introduced.

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#### Supported Platforms

Cisco AS5350, Cisco AS5400, and Cisco AS5850 universal gateways

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### Determining Platform Support Through Cisco Feature Navigator

Cisco IOS software is packaged in feature sets that are supported on specific platforms. To get updated information regarding platform support for this feature, access Cisco Feature Navigator. Cisco Feature Navigator dynamically updates the list of supported platforms as new platform support is added for the feature.

Cisco Feature Navigator is a web-based tool that enables you to determine which Cisco IOS software images support a specific set of features and which features are supported in a specific Cisco IOS image. You can search by feature or release. Under the release section, you can compare releases side by side to display both the features unique to each software release and the features in common.

To access Cisco Feature Navigator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to [cco-locksmith@cisco.com](mailto:cco-locksmith@cisco.com). An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:

<http://www.cisco.com/register>

Cisco Feature Navigator is updated regularly when major Cisco IOS software releases and technology releases occur. For the most current information, go to the Cisco Feature Navigator home page at the following URL:

<http://www.cisco.com/go/fn>

### Availability of Cisco IOS Software Images

Platform support for particular Cisco IOS software releases is dependent on the availability of the software images for those platforms. Software images for some platforms may be deferred, delayed, or changed without prior notice. For updated information about platform support and availability of software images for each Cisco IOS software release, refer to the online release notes or, if supported, Cisco Feature Navigator.

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## Information About Dial-Peer Support for Data Calls

Before Cisco IOS Release 12.2(11)T, a Cisco voice gateway would try to match a voice dial peer before matching and processing a modem call. If a voice dial peer was matched, the call was processed as voice. If there was no voice dial-peer match, then and only then was a call considered to be a modem call. Voice calls always received preference over modem calls. Also, there was no way to assign a subset of addresses in the numbering plan for data calls.

In Cisco IOS Release 12.2(11)T an application called “data\_dialpeer” was introduced to enable gateways to identify dial peers. The application enabled the handling of certain matched calls as modem calls. Refer to *Fine-Grain Address Segmentation in Dial Peers* in Cisco IOS Release 12.2(11)T for more information.

In Cisco IOS Release 12.2(13)T, the Dial-Peer Support for Data Calls feature enables the configuration and order assignment of dial peers so that the gateway can identify incoming calls as voice or data (modem). There are two new commands: **dial-peer data** and **dial-peer search**.

## How to Configure Dial-Peer Support for Data Calls

See the following sections for configuration tasks for the Dial-Peer Support for Data Calls feature. Each task in the list is identified as either required or optional.

- [Configure a Dial Peer for Data Calls, page 3](#) (required)
- [Configure a Search for Dial Peers by Type, page 5](#) (required)

## Configure a Dial Peer for Data Calls

The purpose of this task is to configure your network to identify and process incoming data calls.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **dial-peer data tag pots**
4. **incoming called-number string**

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>  <b>Example:</b> Router> enable	Enables higher privilege levels, such as privileged EXEC mode. Enter your password if prompted.
Step 2	<b>configure terminal</b>  <b>Example:</b> Router# configure terminal	Enters global configuration mode.
Step 3	<b>dial-peer data tag pots</b>  <b>Example:</b> Router(config)# dial-peer data 2001 pots	Specifies a dial peer for data calls and enters dial-peer configuration mode. The keyword and argument are as follows: <ul style="list-style-type: none"> <li>• <b>tag</b>—Specifies the dial-peer identifier. The valid range is from 1 to 2147483647.</li> </ul> <p><b>Note</b> You cannot have a data dial peer and a voice dial peer that is assigned to the same <i>tag</i> number. The <i>tag</i> must be unique for all dial peers.</p> <ul style="list-style-type: none"> <li>• <b>pots</b>—Specifies the dial peer as POTS.</li> </ul>
Step 4	<b>incoming called-number string</b>  <b>Example:</b> Router(dial-peer)# incoming called-number 4085551212	Specifies the incoming called number that is associated with the data dial peer. The <i>string</i> argument specifies the number.

## Verifying the Dial-Peer Assignment

Use the **show dial-peer voice** command to verify the assignment of the dial peers. The following is sample output showing that dial peer 100 is specified as data:

```
Router# show dial-peer voice 19
DataEncapPeer19
  peer type = data, information type = voice,
  description = '',
  tag = 19, destination-pattern = '',
  answer-address = '', preference=0,
  CLID Restriction = None
  CLID Network Number = ''
  CLID Second Number sent
  source carrier-id = '', target carrier-id = '',
  source trunk-group-label = '', target trunk-group-label = '',
  numbering Type = 'unknown'
  group = 19, Admin state is up, Operation state is up,
  incoming called-number = '853...', connections/maximum = 0/unlimited,
  DTMF Relay = disabled,
  huntstop = disabled,
  in bound application associated: 'DEFAULT'
  out bound application associated: ''
  dnis-map =
  permission :both
  incoming COR list:maximum capability
  outgoing COR list:minimum requirement
  Translation profile (Incoming):
  Translation profile (Outgoing):
  incoming call blocking:
  translation-profile = ''
  disconnect-cause = 'no-service'
  advertise 0x40 capacity_update_timer 25 addrFamily 4 oldAddrFamily 4
  type = pots, prefix = '',
  forward-digits default
  session-target = '', voice-port = '',
  direct-inward-dial = disabled,
  digit_strip = enabled,
  register E.164 number with GK = TRUE
  fax rate = system, payload size = 20 bytes
  supported-language = ''

  Time elapsed since last clearing of voice call statistics never
  Connect Time = 0, Charged Units = 0,
  Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
  Accepted Calls = 0, Refused Calls = 0,
  Last Disconnect Cause is "",
  Last Disconnect Text is "",
  Last Setup Time = 0.
```



### Note

For information about the fields in the output above, refer to the [Cisco IOS Voice, Video, and Fax Command Reference, Release 12.2T](#).

## Configure a Search for Dial Peers by Type

The purpose of this task is to configure a search for dial peers by type.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **dial-peer search type {data voice | voice data | none}**

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>  <b>Example:</b> Router> enable	Enables higher privilege levels, such as privileged EXEC mode. Enter your password if prompted.
Step 2	<b>configure terminal</b>  <b>Example:</b> Router# configure terminal	Enters global configuration mode.
Step 3	<b>dial-peer search type {data voice   voice data   none}</b>  <b>Example:</b> Router(config)# dial-peer search type data voice	Specifies the dial-peer search functionality. The keywords are as follows: <ul style="list-style-type: none"> <li>• <b>data</b>—Searches for data dial peers.</li> <li>• <b>voice</b>—Searches for voice dial peers.</li> <li>• <b>none</b>—Searches for all dial peers with the same preference based on the input order.</li> </ul> <p><b>Note</b> The default is <b>data</b> and <b>voice</b>.</p>

## Configuration Examples for Dial-Peer Support for Data Calls

The following sections have configuration examples of the Dial-Peer Support for Data and Voice Calls feature:

- [Dial-Peer Support for Data and Voice Calls Example, page 5](#)
- [Dial-Peer Search Example, page 6](#)

### Dial-Peer Support for Data and Voice Calls Example

The following is a configuration example that shows POTS dial peer 19 configured for data calls:

```
dial-peer data 19 pots
  incoming called-number 853...
```

## Dial-Peer Search Example

The following is a configuration example that shows that data dial peers are searched first, then voice dial peers:

```
!
dial-peer search type data voice
```

## Additional References

For additional information related to the Dial-Peer Support for Data Calls feature, see the following references:

## Related Documents

Related Topic	Document Title
<ul style="list-style-type: none"> <li>Overview of and configuration tasks for dial peers and gateways</li> </ul>	<a href="#">Cisco IOS Voice, Video, and Fax Configuration Guide, Release 12.2</a>
<ul style="list-style-type: none"> <li>Commands used to configure dial peers and gateways</li> </ul>	<a href="#">Cisco IOS Voice, Video, and Fax Command Reference, Release 12.2T</a>
<ul style="list-style-type: none"> <li>Overview of dial peers and dial plans</li> </ul>	<a href="#">Voice Design and Implementation Guide</a> <a href="#">Fine-Grain Address Segmentation in Dial Peers in Cisco IOS Release 12.2(11)T</a>
<ul style="list-style-type: none"> <li>Specific platform and software configuration information</li> </ul>	<a href="#">Cisco AS5350 and Cisco AS5400 Universal Gateway Software Configuration Guide</a>
<ul style="list-style-type: none"> <li>Specific platform maintenance and provisioning information</li> </ul>	<a href="#">Cisco AS5850 Universal Gateway Operations, Administration, Maintenance, and Provisioning Guide</a>

## Standards

Standards <sup>1</sup>	Title
None	—

1. Not all supported standards are listed.

## MIBs

MIBs <sup>1</sup>	MIBs Link
<ul style="list-style-type: none"> <li>CISCO-DIAL-CONTROL-MIB               <ul style="list-style-type: none"> <li>Defines “cPeerSearchType” for global dial-peer search preference.</li> </ul> </li> <li>CISCO-VOICE-DIAL-CONTROL-MIB               <ul style="list-style-type: none"> <li>Defines “cvPeerCfgPeerType” as the type of dial peer.</li> </ul> </li> </ul>	<p>To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at the following URL:</p> <p><a href="http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml">http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml</a></p>

1. Not all supported MIBs are listed.

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:

<http://tools.cisco.com/ITDIT/MIBS/servlet/index>

If Cisco MIB Locator does not support the MIB information that you need, you can also obtain a list of supported MIBs and download MIBs from the Cisco MIBs page at the following URL:

<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

To access Cisco MIB Locator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to [cco-locksmith@cisco.com](mailto:cco-locksmith@cisco.com). An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:

<http://www.cisco.com/register>

## RFCs

RFCs <sup>1</sup>	Title
None	—

1. Not all supported RFCs are listed.

## Technical Assistance

Description	Link
<p>Technical Assistance Center (TAC) home page, containing 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, tools, and lots more. Registered Cisco.com users can log in from this page to access even more content.</p>	<p><a href="http://www.cisco.com/public/support/tac/home.shtml">http://www.cisco.com/public/support/tac/home.shtml</a></p>

# Command Reference

This section documents new commands. All other commands used with this feature are documented in the Cisco IOS Release 12.2T command reference publications.

- [dial-peer data](#)
- [dial-peer search type](#)

# dial-peer data

To create a data dial-peer and enter dial-peer configuration mode, use the **dial-peer data** command in global configuration mode. To delete the data dial-peer, use the **no** form of this command.

**dial-peer data** *tag* **pots**

**no dial-peer data** *tag*

Syntax Description		
<i>tag</i>	Specifies the dial-peer number. The valid range is from 1 to 2147483647.	<b>Note</b> You cannot have a data dial peer and a voice dial peer that is assigned to the same <i>tag</i> number. The <i>tag</i> must be unique for all dial peers.
<b>pots</b>	Specifies the incoming POTS dial peer.	

**Defaults** There is no default behavior or value.

**Command Modes** Global configuration

Command History	Release	Modification
	12.2(13)T	This command was introduced.

**Usage Guidelines** A data dial peer should be defined only for incoming data calls. The **incoming called-number** and **shutdown** commands on the data dial peer are allowed. However, the following POTS dial-peer commands are disabled to minimize the run-time impact:

- **answer-address**
- **carrier-id**
- **destination-pattern**
- **information-type**
- **port**
- **trunk-group-label**

**Examples** The following example is a data dial-peer configuration:

```
dial-peer data 100 pots
incoming called-number 100...
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>dial-peer search type</b>	Optimizes voice or data dial-peer searches.
	<b>incoming called-number</b>	Specifies an incoming called number of an MMoIP or POTS dial peer.

# dial-peer search type

To optimize voice or data dial-peer searches, use the **dial-peer search** command in global configuration mode. To disable the search parameters, use the **no** form of this command.

**dial-peer search type { data voice | voice data | none }**

**no dial-peer search type**

Syntax Description	data	Searches for data dial peers.
	<b>voice</b>	Searches for voice dial peers.
	<b>none</b>	Searches for all dial peers regardless of assignment.

**Defaults** Data dial peers are searched first, then voice dial peers are searched only if no data dial peers can be matched for an incoming call.

**Command Modes** Global configuration

Command History	Release	Modification
	12.2(13)T	This command was introduced.

**Usage Guidelines** The search defines the search preference explicitly. If the **data** and **voice** keywords are specified, then data dial peers are searched first. If no data dial peers are found, then the voice dial peers are searched.

**Examples** In the following example, the data dial peers are searched first, then the voice dial peers are searched only if no data dial peers can be matched for an incoming call:

```
dial-peer search type data voice
```

In the following example the voice dial peers are searched first, then the data dial peers are searched only if no voice dial peers can be matched for an incoming call:

```
dial-peer search type voice data
```

Related Commands	Command	Description
	<b>dial-peer data</b>	Enable a gateway to process incoming data calls first by assigning the POTS dial peer as data.

■ dial-peer search type